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ABSTRACT

The aim of the South Carolina Basic Skills Assessment Program was to meet legislative requirements, to improve instruction and to integrate instructional sensitivity into the state's educational programs for grades K-12 in the basic skill areas of reading, writing and mathematics. In their task of identifying, compiling and revising educational objectives for all grade levels, the program staff sought maximal use of locally developed objectives. Eventually, sixteen broadscoped objectives and measurement strategies were agreed upon, six for reading, and five each for writing and mathematics. It was also necessary to determine objectives for statewide kindergarten programs and to select an appropriate readiness test for the measurement of childrens' readiness to commence the formal school curriculum. The Cognitive Skills Assessment Battery was chosen as being most representative of the objectives. Score reports, and publications intended for both parent and teacher use were developed. In response to legislation requiring the setting of minimum standards for tests and the implementation of programs to raise student performance to statewide standards, programs were field tested; and criterion referenced tests to diagnose and identify student deficiencies and strengths were developed, field tested and revised. (AEF)

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INSTRUCTIONAL ISSUES IN THE DEVELOPMENT OF A BASIC SKILLS ASSESSMENT PROGRAM

by

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Instructional Issues in the Development
of a Basic Skills Assessment Program

The central thrust of South Carolina's Basic Skills Assessment Program is that of instructional improvement. This feature sets the South Carolina legislation apart from the legislation of other states. Several features of the legislation highlight this instructional improvement emphasis.

First, the Basic Skills Assessment Program is a seven-year phase-in program. Second, the law requires, as a first step, the establishment of educational objectives in Grades K-12 in the basic skill areas of Reading, Writing, and Mathematics. Note that basic skills is defined as the gamut of skills in these three areas at all grade levels not merely minimal skills. Third, unlike most states which test at the middle and upper grade levels, the emphasis of the testing is at the early grades, including a readiness test at the beginning of first grade and criterion-referenced tests at the end of Grades 1, 2, 3, 6, 8, and 11. Fourth, statewide minimum standards are to be set for the tests for the purpose of detecting early deficiencies and ensuring appropriate instruction to delete these deficiencies. Hence, the tests are not to be used for grade-to-grade promotion nor for the awarding of the high school diploma. Fifth, the legislation also requires local school districts to adopt policies to insure continuous assessment of the student's progress toward the statewide minimum standards, to use the results of the tests to help in the diagnosis of student deficiencies, to provide instruction to bring student performance up to the minimum standards, and to provide information and explanations of deficiencies to parents. Sixth, the legislation also requires the field-testing of instructional programs designed to raise student performance to the statewide minimum standards. Thus, in a nutshell, these are those components of the law that dictate an all out effort toward instructional improvement.

This paper will focus on the Basic Skills activities that have been completed, are in progress, and are planned to enhance these instructional components inherent in the legislation.

Identification of Educational Objectives, Grades 1-12

Prior to initiating the objectives identification task, Department staff met to develop the guidelines that would serve as the basis for the establishment of the educational objectives.

According to the guidelines, the objectives were to serve the following purposes:

1. to serve as a guide for the "basic skills" curriculum;
2. to serve as a means for measurement;
3. to assist in instructional diagnosis; and
4. to serve as a means for communicating to the public.

The guidelines also outlined seven criteria or characteristics for the development of the objectives; namely, the objectives were to:

1. represent basic skills;
2. be limited to school-based learning and applications of school-based learning;
3. be cognitive in nature;
4. represent the outcomes of learning;
5. represent a continuum of skill development across grade levels with some grade level overlap;
6. include all levels of difficulty; and
7. be measurable in some way, either by pencil and paper tests or teacher observations.

In addition to the guidelines that relate to the purposes and characteristics of the objectives to be developed, guidelines for determining

existing objective resources, possible objective identification strategies, and local involvement in the process were also established.

In general, a strategy involving maximal use of locally-developed objectives and local expertise was implemented. Additionally, given the amount of work to be accomplished within a ten-month period of time, a contractor, Instructional Objectives Exchange (IOX), was selected, via a competitive bidding process, to assist the Department in the effort.

Prior to the adoption of the objectives by the State Board of Education in July, 1979, the following steps were accomplished.

1. All 92 districts were requested to submit existing objectives, Grades K-12, to the Department.
2. IOX combined these objectives with already existing objectives, national and State Department of Education objectives, to form the preliminary Statewide Objectives, Reading, Writing, and Mathematics, Grades 1-12. Thus, the preliminary objectives reflected both a state and a national perspective.
3. Department staff and committees of Reading, Writing, and Mathematics curriculum specialists: teachers, district level personnel, and college and university professors, reviewed and revised these objectives.
4. The Department and committee-revised objectives were submitted to each school in the State for a teacher review at the same time that eight public regional meetings were being held for lay citizens. Some 18,000 teachers and hundreds of lay citizens reviewed and reacted to the objectives.
5. The objectives were revised based upon the teacher and lay citizen input and submitted to the State Board of Education for adoption.

This extensive involvement of educators and the public had potential payoff in terms of fostering local ownership of and support for the objectives.

To facilitate the instructional component of the legislation, global broad-scoped objectives were selected. The rationale behind this type of objective was that (1) teachers would have a manageable number of meaningful instructional targets rather than unlimited sets of objectives; (2) districts would be able to merge locally-developed criteria more easily within a broad framework than within a highly specified framework; and (3) through effective instruction, the end-of-grade-level outcome objectives could be achieved.

A strand of 16 broad-scoped objectives were identified in Grades 1-12. The 16 objectives consisted of six Reading Objectives, five Writing Objectives, and five Mathematics Objectives.

To insure that the strand of objectives clearly communicated to teachers, a suggested measurement strategy was also developed for each of the 16 objectives at each grade level. Thus, by considering the objective and the suggested measurement strategy, teachers and district level personnel could gain a fuller understanding of the instructional intent of the objectives. The inclusion of the measurement strategy also provided the teacher with information that can be used to develop classroom activities and tests that can be used as check points in determining how students are progressing toward the attainment of an objective.

Sufficient copies of the objectives for all Grades K-8 teachers and high school Language Arts and Mathematics teachers were distributed to the school principals in October, 1979.

Identification of Kindergarten Objectives and Selection of Readiness Test

Simultaneous with the establishment of the educational objectives, the selection and field-testing of a readinesss test was required.

The purpose of the readiness testing, by law, is "to measure a student's readiness to begin the formal school curriculum". The Act clearly states that the administration of the readiness test is to be at the beginning of the school year in Grade 1. Additionally, the results of the readiness test are to be used for providing appropriate developmental activities to those first graders who are "not ready" to begin the formal first grade curriculum.

A Kindergarten Committee was selected to assist the Department in the identification of the Kindergarten Objectives, the selection of the readiness test, and the setting of the readiness standard based on the field-test results. This committee was primarily comprised of individuals with expertise in the area of early childhood education. Committee members were selected on the basis of recommendations from district superintendents and State Department of Education personnel. Special care was taken to insure that minority groups were represented and that the Committee included representation from the following groups: district-level personnel, first grade teachers, kindergarten teachers, administrators, college and university professors, and testing specialists.

The initial compilation of the objectives was submitted for review by the school districts and a sample of kindergarten and first grade teachers. A second compilation was submitted for review by these same groups and was printed in newspapers for public review.

The Kindergarten Objectives in their final form are intended to provide teachers with suggestions for involving kindergarten students in meaningful developmental activities. The 18 objectives do not represent minimal skills

but, instead, represent the primary components of what is considered to be a strong readiness program aimed at providing necessary concepts and skills which are fundamental to future success in Reading, Writing, and Mathematics. In accordance with the basic skills legislation, any student who does not demonstrate readiness for the first grade as evidenced by the attainment of these objectives must be afforded the opportunity to continue the development of these skills in the first grade.

Each of the 18 objectives is followed by an explanation or clarification of the objective in which activities or subskills are suggested for helping the student attain mastery of the more global objectives. Although the activities are those which the majority of South Carolina public school districts include in their kindergarten programs, this list is not intended to exclude other appropriate activities. Additionally, the activities represent a suggested range of difficulty; consequently, all students are not expected to achieve mastery on all suggested subskills. Therefore, the intent is that, while all students are not expected to attain mastery of each subskill suggested, the individual student should be exposed to any task for which he is developmentally ready.

In assessing a student's progress with respect to any given objective, the teacher may have to rely on teacher observation, test items, or a combination of these two assessment techniques.

In the selection of the readiness test, the Kindergarten Committee reviewed some 14 group administered tests, individually administered tests, and kits. The committee unanimously selected the Cognitive Skills Assessment Battery (CSAB), an individually administered test, as the test most representative of the Kindergarten Objectives. Following the selection of the CSAB, the test was field-tested using a sample of kindergarten students in 75

schools in 33 school districts. Based upon teacher judgments and student data from the field-test, a readiness cut-offf score was established. The test was administered statewide in the Fall of 1979 and the Fall of 1980.

In order to effectively implement an individually administered test on a statewide basis, the following had to occur:

1. the development of logistical procedures, based upon recommendations by representatives from 35 of the 92 school districts, which included times for testing, substitute teachers salaries to allow the classroom teacher to individually administer the test, optional procedures for testing during the first fifteen days of the school year, and facilities for testing;
2. intensive pretest training involving 20 regional workshops to train one first grade teacher, the school principal, the district test coordinator, and three district level staff to administer the test and to use the results of the testing; and
3. the development of a video training tape for regional workshop participants to use in training the remaining first grade teachers in their schools.

Readiness score reports were also developed. Two of the reports, the Individual Student Home Report and the Class Profile Sheet were developed to enhance the instructional orientation of the law. The Individual Student Home Report contains the child's readiness score, readiness status, and a list of the objectives tested and their explanations. Those objectives in which the student needs additional developmental activities are flagged with a double asterisk. The Class Profile Sheet provides instructional information to the teacher via the use of asterisks. If a student's score on an objective is border line, a single asterisk appears by the student's score for that

objective, denoting that additional diagnosis is needed. If the student's score indicates that the student needs additional developmental activities, a double asterisk appears by the student's score for that objective.

To further promote the instructional intent of the law and to provide teachers with additional insight into the purpose of the readiness testing, two readiness publications, the Rainbow Book and Ready or Not, were developed and disseminated to kindergarten and first grade teachers and district level personnel. The Rainbow Book contains developmental activities based upon the 18 State Kindergarten Objectives and suggestions submitted by South Carolina teachers. These activities were written specifically for first grade teachers to use with first graders in bringing them into the formal curriculum as learning and maturity dictate. The publication, Ready or Not, presents interpretive information, along with the first year results of the 1979 Statewide Readiness Test Administration. The publication also contains instructional implications of the test results, local reactions to the testing, and local plans for using the test results. In addition to these two publications, Learning Through Play: A Guide for Parents of 3-, 4-, or 5-Year Olds was developed. This publication contains developmental activities keyed to the 18 State Kindergarten Objectives. These activities were designed specifically for the parents of these 3-, 4-, and 5-year olds and can easily be done at home.

Development and Field-Testing of the Grades 1, 2, 3, 6, and 8 Criterion-Referenced Tests

In addition to the statewide administration of the readiness test during the 1979-80 school year, the Department was charged with the development or selection of end-of-year achievement tests in Reading and Mathematics for Grades 1, 2, and 3. Concurrently, tests were to be developed or selected for

Grades 6 and 8 that would measure student achievement in Reading, Writing, and Mathematics. The legislation specified that the tests would be criterion-referenced and have as their purpose the diagnosis of student deficiencies in determining instruction needed by the student in achieving the minimum statewide standard established for each respective grade level.

Rather than select "shelf tests" for Grades 1, 2, 3, 6, and 8, the Department decided to develop the end-of-year criterion-referenced tests. The decision to develop the tests was guided by the fact that a criterion was to be set for each of these grades, thus making the instructional validity of the tests the crucial consideration. Additionally, the development of the tests insured that the test items would measure South Carolina's educational objectives. Thus, by strict design, what is taught is what is measured.

Since the basic skills legislation requires that the Department maintain security on all basic skills tests, the Department decided to develop and field-test pools of test items for each basic skills objective rather than develop and field-test a single test. The development of pools of test items for each Reading, Writing, and Mathematics objective would permit the creation of several alternate tests of equivalent difficulty. This procedure permits the use of a different test each year, and consequently, reduces any problems associated with the possible loss of security on any one of the tests. The creation of test item pools for each objective also enhances instructional improvement by fostering instruction of the full range of skills since all skills are fair game on each form of the test.

Given the magnitude of the work involved in the test development effort, the Department decided to develop a Request for Proposals (RFP) to acquire assistance from a test development contractor. Via the competitive bidding process, Instructional Objectives Exchange, the contractor that had assisted

the Department in the identification of the Grades 1-12 Objectives, was selected as the test development contractor.

The first step in the test development process was the creation of a "Framework" for the Development of the Grades 1, 2, 3, 6, and 8 test items. The "Framework" was developed by IOX and submitted to the Department for approval. The "Framework" addressed the manner in which various issues such as cultural bias and reading level would be dealt with during the development process.

Upon approval of the "Framework" by the Department, IOX began developing the preliminary test item specifications from which the test items would be created. The preliminary test item specifications were based on the previously identified Basic Skills Reading, Writing, and Mathematics Objectives within the constraints imposed by the "Framework". Basically, the specifications clearly defined the content that was appropriate for inclusion in the test and such things as the appropriate reading level, the skills and subskills to be assessed, the maximum length of reading passages, and the acceptable item types.

Once completed, the prelminary test item specifications were submitted to Department staff and the Basic Skills Reading, Writing, and Mathematics Committees, composed of South Carolina's educators, for review and revision. Department staff and the Basic Skills Committees reviewed and revised the preliminary test item specifications in October of 1979.

One major change occurred during the committee reviews. The Writing Committee decided that the Writing tests for Grades 6 and 8 should consist of student generated writing samples. Thus, writing prompts rather than multiple-choice test items were developed for the assessment of the Writing skills.

Based upon Department and committee input, the preliminary test item specifications were revised; and the preliminary test items for the five

grades were developed. These preliminary test items were submitted to the Department staff and the Basic Skills Reading, Writing, and Mathematics Committees for review and revision in March of 1980. Based upon the input of these two groups, the test items were finalized and field-tested on a representative sample of South Carolina students. The field-test sample consisted of students located in 38 schools in 24 districts across the State. The field-test served to identify faulty test items and to provide indices of item difficulty. The data from the field-test were analyzed and reviewed by Department staff and the Basic Skills Committees for the purpose of eliminating and revising faulty items and constructing alternate forms of the various tests. In some cases, the committees retained difficult non-fitting test items in the item pools. These difficult non-fitting items were retained for two reasons: (1) to insure that the skill is incorporated in the istructional program and (2) to insure a means of evaluating instructional improvement. The field-test also served as a tryout of the standards setting procedure.

The first statewide administration of the Grades 1, 2, 3, 6, and 8 criterion-referenced tests is currently scheduled for the week of May 4-8, 1981. Seventeen workshops were held to train district and school level personnel in the administration procedures. Following the first statewide administration of the criterion-referenced tests, minimum standards of achievement will be established for each skill area at each grade level. The Department is investigating various cut-off methods for the criterion-referenced tests. The method used for the readiness cut-off score, teacher judgments, in combination with student data from the statewide administration, is one method that is being considered.

The cut-off score is viewed in the context of the legislation as representing a decision point below which the student demonstrates a deficiency in Reading, Writing, or Mathematics. A student's score on the grade appropriate end-of-year achievement test provides the instructional planner with one piece of evidence for additional instruction that must be planned for and provided to that student. The Department is also developing score reports to assist the teacher in identifying areas of student weaknesses and to assist districts in notifying parents of students with deficiencies. While the Act directs attention to the identification of student deficiencies, one must not overlook the positive information provided by a student's test score(s). That is, the same test that provides clues to student deficiencies also illuminates student strengths, an important aspect for instructional planning.

As a part of the test development process, several publications have been developed to promote the instructional intent of the legislation and the use of test information as an instructional tool. As a by-product of the test development process, IOX developed and prepared for the Department a publication entitled, South Carolina Word List. This publication contains a by-grade-level listing of words used in developing the Basic Skills Assessment Program Tests in Reading, Writing, and Mathematics. However, the most instrumental instructional publication developed thus far is the pilot edition of Teaching and Testing Our Basic Skills Objectives. The purpose of this publication is to clarify the State Objectives to the State's educators. The guide includes key features of the basic skills tests as tools for curriculum and instructional development. Specifically, the gu rovides a summary of how each objective is tested and how this information can be translated into activities for teaching the basic skills.

Field-Testing of Instructional Programs - Grades 1, 2, 3, 6, and 8

Section 1(n) of the Act requires the selection or development and field-testing of basic instructional programs during the School Years 1980-81 through 1984-85 in Reading, Writing, and Mathematics in at least five representative school districts that are designed to raise student performance up to statewide standards. Thus, the Act requires that the Department field-test instructional programs designed to meet the needs of students who are defined as "not ready" at the beginning of Grade 1 and those students who do not meet the mininum standards that are set for the ends of Grades 1, 2, 3, 6, and 8. Under the provisions of the legislated implementation time line, the 1980-81 field-testing of programs is restricted to developmental programs to meet the needs of students who were identified as "not ready" on the Grade 1 readiness test.

Utilizing Title IV-C funds, a total of six school districts are involved in field-testing three developmental programs during 1980-81. Each of the programs is being field-tested in two school districts.

The field-testing of instructional programs at Grades 1, 2, 3, 6, and 8 will occur once those testing programs are intact.

Other Activities

In addition to the products that have been generated as part of the test development process, the Department has developed a Handbook for Understanding the Basic Skills Assessment Program. The Handbook explains the major provisions of the law, the implementation status, and answers local district questions regarding the legislation. A brochure has also been developed that explains the program in easily understandable language.

The law also requires the Department to monitor and evaluate the curriculum and instructional methods in each school to insure compliance with the standards and purposes of the law. This year, the monitoring process has begun. Approximately one-third of the school districts will be monitored this year, and the other two-thirds will be monitored during the next two years. Since beginning the monitoring process, the Department has been surged with requests for up to 1,000 coipes of publications from districts, teachers, parents, and interested individuals.

Future plans are to develop a first edition of Teaching and Testing Our Basic Skills Objectives for Reading, Writing, and Mathematics based upon the survey recommendations, to develop and update the edition of Understanding the Basic Skills Assessment Program, to continue developing publications with instructional implications, to provide more and more inservice, and to nourish, nourish, nourish.

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